

IOWA STATE UNIVERSITY

Digital Repository

Volume 32 | Issue 1

Article 8

1970

What's your Radiographic Diagnosis?

William Blevins
Iowa State University

Follow this and additional works at: https://lib.dr.iastate.edu/iowastate_veterinarian



Part of the [Diagnosis Commons](#), [Higher Education Commons](#), [Radiology Commons](#), and the [Veterinary Medicine Commons](#)

Recommended Citation

Blevins, William (1970) "What's your Radiographic Diagnosis?," *Iowa State University Veterinarian*: Vol. 32 : Iss. 1 , Article 8.
Available at: https://lib.dr.iastate.edu/iowastate_veterinarian/vol32/iss1/8

This Article is brought to you for free and open access by the Journals at Iowa State University Digital Repository. It has been accepted for inclusion in Iowa State University Veterinarian by an authorized editor of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

and neck of a shy turtle can be very frustrating. In some cases, the head may be presented to view by pressing all four flexed limbs more deeply into the shell thus displacing the head anteriorly from its retracted position. Subcutaneous injections may be made thru the thin, loose skin of the axilla or groin. The thigh muscles or the dorsolateral muscle masses at the base of the tail may be utilized for intramuscular injections.

Most pet crocodilians are South American Caimans, a type of alligator, and pet specimens range in size from about ten inches to three and one half feet in length. Their ability to dorsally extend the head and neck is limited; they grab their prey (and antagonists) by a sideways sweep of the head with open jaws. They are therefore best approached from above and grasped by the neck and base of the tail. For prolonged restraint the jaws may be tied or taped closed. As in turtles, the loose skin of the axilla and groin are the preferred sites for subcutaneous injections and intramuscular injections are easily

made into large dorsolateral muscles of the tail.

Because reptiles are poikilothermic, it is often suggested that refrigeration be used as a means of restraint. Although placing a bagged snake or lizard into the refrigerator for an hour or two is an effective means of immobilization, it is attended by several hazards which outweigh the technique's sole advantage of simplicity. With snakes, a common consequence of rapid hypothermia and subsequent rewarming is anorexia which frequently leads to death if forced-feeding is not instituted.

The restraint methods described above have been found eminently useful by this writer. It is hoped that the imaginative practitioner will use them and modify them according to his needs and experiences. Thru use of adequate restraint techniques on wild and exotic animal pets the busy practitioner of veterinary medicine is capable of rendering greater professional service to the occasional client who presents such a pet for examination and treatment.

What's your Radiographic Diagnosis?

William Blevins, D.V.M.*

History

On January 23, 1970 a 9 month old, female Afghan hound was referred to Stange Memorial Clinic, Iowa State University with an owners complaint of lateral deviation of the right front foot. The owner stated that the condition was first noticed about four months ago and has become progressively worse. Attempts to correct the deviation by splinting have failed.

Physical examination revealed no abnormalities except the deviated manus. The dog walked with the deviated manus rotated laterally and exhibited no apparent pain.

(Answer on page 44)

*Dr. Blevins is an Instructor in the Department of Clinical Science at Iowa State University, Ames, Iowa.



Answers to What's Your Radiograph Diagnosis

Diagnosis

Premature closure of the ulnar physis

Discussion

This disease is caused by a closure of the distal ulnar physis while the radius continues to grow. Since the ulna is located lateral to the radius at the carpus, its relative shortness compared to the radius allows the manus to deviate laterally. Occasionally two other possible sequelae may be seen. The ulna may be dislocated at the elbow by the stress created by the growing radius or the radius may be dislocated at the carpus as a result of the same stress.

The etiology of premature closure of the ulnar physis is thought to be traumatic. At least 50% of the dogs affected by this disease have a history of trauma. If one considers the fact that the single ulnar physis must maintain a growth rate in the ulna equal to the growth rate of the two physes of the radius, then the ulnar physis must have a higher metabolic activity. It would then probably be more susceptible to trauma.

Since this is a disease of the physis, it

will be manifested during the growing stage of the dog (1 year or less). Although the disease can occur in any breed, it is most commonly seen in the larger breeds.

Treatment

Treatment of this disease depends upon the animal's stage of growth. Prior to closure of the radial physis epiphyseal stapling and/or osteotomy of the ulna have been used. The stapling procedure is an attempt to delay or stop the growth of the radius. The osteotomy of the ulna should allow the limb to be straightened and splinted.

After closure of the radial physis (8–12 mo.; 9 mo. ave), a cuneiform osteotomy of the radius and osteotomy of the ulna may be performed. This technique is used after physal closure to avoid recurrence.

A cuneiform osteotomy of the radius and osteotomy of the ulna was used with this case. Although the distal physis of the radius is still open, it is not expected to grow significantly since it is nearing maturation. The osteotomy of the radius was immobilized with a three hole bone plate.